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THE TORQUE·TUBE

THE NEWS PUBLICATION FOR MEMBERS OF THE 1937-1938 BUICK CLUB • FOUNDED 1980



Volume VII • Number 3



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VOL. VII, NO. 3 • DECEMBER 1988

• William E. Olson, Editor •

• 842 Mission Hills Lane, Columbus, Ohio 43235 •

• Club News •

As of the end of November, 49 people had not renewed their memberships, out of a total of 378. Doubtless a few more will straggle in — it always happens. The total number at the end of August was the highest we have ever had, and the drop-outs the fewest. Typically, in recent years, up to a third of the membership would drop out each year, but new members always came in to take the places of the departed. This year's drop-out rate is considerably smaller. With recently-added new members, we still have about 340.

I'm not sure what this means. Perhaps fewer people are selling their cars and moving on to something else. (Three people who did this were kind enough to send me notes to that effect, explaining why they were dropping out.) Perhaps more people have decided that membership is really worthwhile. (How anyone could think otherwise I don't know). In any event, I have decided to keep a low profile on publicity and allow the Club to add new members primarily through word-of-mouth. Four hundred people is probably the outer limit of size I can handle.

When Dave Lewis first got the Club going in viable form, it had about 230 members. Of those, 93, or about 40%, remain. When I joined in early 1984 I received number 427. Of the 426 who joined before me, 137, or 32%, are still members. We are now up to 734 in membership numbers. (I assign them consecutively and do not re-use any number unless a former member who dropped out returns.) Thus, of the total number who ever joined (734) about 46% (340) are members today. Over a span of eight years, I guess this is not bad.

Comment from Dave Lewis and others suggests that one thing keeping people in the Club is the excellent series of technical articles and photos done by Paul Culp (#508). Indeed, looking back over the past 12 months, I cannot see what I would have done without him. So I will take this opportunity to thank Paul for his extraordinary



FOUNDED BY DAVE LEWIS



efforts and his great talents. We likewise should again thank Dave, who did the really hard work of forming the Club and getting it off the ground, and who has given countless hours of help to us.

Finally, I will thank all those who have written or called with messages of thanks or encouragement during the past year. I regret that I have not been able to respond to everyone, but I appreciate them all. That said, I will remind all of you — and in particular those who have promised printable material and not delivered it — that I cannot indefinitely fill these pages with useful matter without help. The Torque Tube does not emerge full-grown from my head, as Athena sprang from the head of Zeus.

BACK ISSUES

The Editor still has copies of all Vol. VI issues (1-9); a few of the numbers are in short supply. To obviate falling over these any more, or being nagged about the space they take up, I may well get rid of all of them soon. Therefore, it will behoove all new members to get hold of these while the getting is good. To encourage such behavior, I have instituted, effective immediately, this

SUPER LIMITED-TIME OFFER!!

Until January 31, 1989, back issues will be sold for \$1.50 each postpaid (U.S. and Canada; \$2.00 each otherwise), or one-half the usual price. On February 1, they will either (a) become Collector's Items with a High Price; or (b) be trashed.

As further encouragement, I have taken the trouble to list below a few of the items that appeared in each Vol VI issue.

1. "Roadmaster Romance" (great story); '38 shocks; torque wrench readings.
2. "Touring to Timberline" (another great story); distributor function and repair (even an intelligent child, nay, even a lawyer, can understand this).
3. Convertible Top Windows (original research unravels mystery); 1938 production changes (are gray engines right?).
4. Matching 1938 paint colors (formulas found nowhere else); upgrading brakes.
5. "Das Buick mit Beiwagen" (an incredible tale); "One Roadmaster Richer" (yet another great story); overheating; early 1937 steering wheels.
6. 1938 Baltimore police cars; "The Flying Dutchman" (a great story? — you betcha!); Engine Rebuilding — Part 1: Getting Started.
7. 1937 ambulance; Engine Rebuilding — Part 2: Engine Mounts; Part 3: Insert Rod Bearings (important!).
8. Australian Holden "Sloper" Coupes; adding an oil filter; Engine Rebuilding — Part 4: Block & Crankshaft.
9. More on auxilliary fans; electronic voltage regulator; Engine Rebuilding — Part 5: Cam and Lifters.

Plus many other items of interest, photos, poetry and much more.

CLOTH PATCHES

Some time ago, Keith Ladderud (#163) financed with his own money the production of some extremely nice custom-embroidered cloth patches showing the Club logo in red, white and blue. These are approximately three by five inches in size and may be sewn (or even glued) on hats, jackets, pajamas, or anything else, including, but not limited to, the bellies of teddy bears. After an initial flurry of orders, sales dwindled (that's usually what happens), and 18 months later Keith still had not recovered his cost. I therefore decided the Club would "take him out" and bought all the remaining patches for the unrecovered balance of his original investment. There are still a few hundred left, and it is unlikely they will be made again soon, if ever. And so,

ANOTHER SUPER LIMITED-TIME OFFER!!

Patches will be sold by the Club until January 31, 1989 for one-half their former price: \$2.50 each, or two for \$4.50, or three for \$6.00, or more than that for \$2.00 a piece. (Again, postpaid in U.S. and Canada; others please add a buck or two for postage.) To repeat, these are very well-done and look great.

DECALS

Club decals have likewise sold very slowly. These also show the Club logo in red, white and blue and are about two by three inches. They are water-transfers and may thus be applied to the inside of a window or to any smooth surface.

YET ANOTHER SUPER LIMITED-TIME OFFER!!

Until January 31, 1989 decals will be sold for 50¢ each, or three for \$1.00, postpaid anywhere in the world. Again, one-half the regular price.

ALL SALE PROCEEDS GO TO THE CLUB.

1989 EASTERN CLUB MEET

This issue will content itself with a short reminder only: the "Eastern Club Meet" will take place in Ohio September 14-17, 1989. Details and registration forms appeared in Issue 2. (If you have already lost the forms, send SASE to Editor for replacements.) As of November 28, two people had called to tell why they can't come: it seems that despite my efforts to avoid conflict with other events, I picked the same weekend as the big "Hoosier Show" in Indianapolis and the start of a VMCC "Glidden Tour." Well, so be it. I suppose such things are unavoidable. Please don't procrastinate on the Club Meet, friends: the '87 event was, in the opinion of all who were there, the best old car meet ever. Our '89 Meet will be just as good, or better.

A word to those whose cars are not finished, not running, etc.: come anyway. Plenty of people (including me) did that for the '87 Meet in Flint, and no one felt left out.

WHAT WE DO (FOR A LIVING)

Last year, I included on the Application/Roster Info form a space in which members could, if they wished, indicate occupation or business and auto-related interests or expertise. Most people filled this out, and the result was, I thought, rather interesting. I did it not to be nosey, but rather because I thought it would prove something. It did: the occupations of our members are almost as diverse as the population at large, and

run virtually the whole gamut of human endeavor. That is to say, this is not a "rich man's" hobby, or a retired persons' hobby, or exclusively any other kind of a person's hobby. Nor is it a hobby solely for those with engineering or technical vocations. The pizza-chain owner who can spend \$5 million for a Duesenberg may get the publicity, but in our Club there's no one like him. Some of us are obviously better-heeled than others (which is of course true of the world at large), but when everybody stands around in a parking lot yakking about cars, that makes little or no difference.

Last year I printed a little survey of our occupations. I hope you found that at least mildly interesting, because I am doing it again. An up-dated survey appears below, based on the 1988-1989 roster forms received as of November 22, 1988. (Some people did not fill out the "optional" part of the form, and some others did not fill the form out at all; they are not included.) As before, some of the classifications may be more-or-less arbitrary. In general, I tried to distinguish owners of businesses to the extent possible: thus "Auto Parts" and "Manufacturing" — to take two examples — include persons who are owners or part owners of such businesses, while a person who is an employee of a manufacturing company would be listed under "Managers" or "Engineering" or something like that. "Retail businesses" includes owners of stores of all kinds: jewelry, food, carpets, appliances, lumber, etc. etc. Although it may be a retail business, I separated out "auto parts" since there are more of these than any other. (I suppose selling cars, insurance, or even funerals could also be called retail businesses, but these establishments are not normally thought of as "stores" and received separate classification.) A few people proved difficult to classify, without making a very long list. Thus, one member who is a railroad conductor ended up under "Technicians" — not altogether satisfactory, but the best I could think up. Here it is.

Accounting; auditing	3	Data processing	2
Architecture	1	Dentistry	4
Art; design; photography	4	Education	14
Auto dealers	7	Engineering	14
Auto parts; tires	6	Exterminating	2
Auto repair	7	Farming	2
Auto restoration	3	Funerals	2
Banking; finance	3	Insurance	1
Civil service	16	Investments	2
Clergy; religion	2	Journalism; publications	3
Consultants (various)	3	Landscape	1
Contractors	17	Law enforcement	6
General building - 6		Lawyers	4
HVAC - 3		Managers; supervisors (various)	19
Electrical - 2		Manufacturing	10
Concrete - 1		Medicine	7
Unspecified - 5			
Crafts (mechanics, tools & die makers, masons, carpenters, etc.)	21		

Pharmacy	3	Sales	9
Printing	5	Science	1
Radio; TV; film	2	Technicians (various)	5
Real Estate	6	Trucking; limousines	4
Retail businesses (various)	15	RETIRED	39

The largest single group is plainly "Retired," but that is about 15% of the total, very close to the figure for the U.S. population as a whole. It is not surprising that about 10% of us have auto-related vocations; it is much more significant, I think, that 90% of us do not. Well, one could go on all day with commentary on this; I will conclude by saying that I hope never to encounter professionally our F.B.I. agent or our Special Agent of the U.S. Treasury Department.

"INTERESTS" AND "EXPERTISE"

You will recall that I also put on the Roster form an "optional" space for "auto-related interests or expertise." This inquiry is only semi-serious, and as noted last year, it tends to draw some unusual commentary. Here is a sample.

From Ed Lafleur (#175), who owns, in addition to his '37 model 46-S, a 1921 Stanley: "Hate to say it, Bill, but I find steam more interesting than Buicks. You just don't jump in and turn a key. As a matter of fact, they don't have keys — all you need is a blow torch, a desire to fiddle with valves, and a supply of eyebrows to make up for those singed by burner blow-backs." (I find steam cars rather interesting myself, Ed, but regard them as I do babies and very large dogs: great if they don't belong to me.)

From Randy Dozier (#561), whose form came in somewhat ruffled: "I apologize for the condition of this. I spilled scotch on it and was up until 2 AM licking it off." (Now we know what Randy wants for Christmas.)

From Chuck Ash (#500): "Puttering."

From H. J. Glass (#111): "I am beginning to believe I am forgetting more rapidly than I am learning, hence I fall behind daily." (Good Lord, Jay, this is no cause for concern. It happens regularly to me, but I go by the principle that what I forget is ipso facto not worth remembering.)

From Don Huff (#261): "At 90 years old, my occupation is thinking of happy bygone days."

I put that last one in, folks, as an excuse to pay a little Special Attention to Don Huff, who is, as he says, 90 years old and, I feel sure, our Oldest Living Member. Don's still kickin', and drives his '37 Century every day. He and the car have mellowed out together: Don is the only owner the Century has ever had. That's right, folks, he bought it new, in Flint, in December 1936, drove it home to California, and has had it ever since. Don learned to drive in his father's Buick roadster, around the time that anarchist was getting ready to pop off Archduke Ferdinand and start World War I. (That was 1914.) I hope everyone will join me in a New Year's Wish for Don: we hope you and the Century will have many future happy days!

That goes for everyone. Happy Holidays!

Bill

from Gary Stafford:

RARE BIRDS



I have a very ambivalent attitude about street rods. Many of them exhibit beautiful workmanship, and many are made from cars that were not practically restorable to original condition. In most cases, the owners are nice people who simply march to a different drummer than most of us. Nevertheless, a street rod always gives me a twinge, and I wonder about what might have been. Here's one that may twinge you: Gary Stafford's '38 Special sport coupe, or what remains of it. Gary says a friend of his built it, and then decided he wanted to trade it for — in Gary's words — "some of my motorcycles." The body is pretty much stock 1938 (or will be when the running boards go back on). BUT...underneath is a 425 "nailhead" V-8, Riviera rear end, turbo Hydra-matic, disc brakes front and rear, AC, tilt wheel, etc., etc. Gary says: "Runs Real Strong." I'll bet it does! He expects to sell it soon to finance completion of his '37 Century convertible and continuation of work on his '38 model 87: laudable goals, surely.





Here's another odd one, formerly owned by Gary Stafford: the world's only 1938 Buick "three-window coupe." "Some joker must have been doing some backyard customizing," Gary says, "...it was a good conversation piece." Looks like a '36. The photo was taken in 1966, and shows the very first BCA meet in the Los Angeles area.



CARS FOR SALE • WANTED

CAR WANTED: I travel frequently in the U.S. and would like to purchase a 1938 coupe, convertible, or phaeton. JOHN BEAGLE (#278), P.O.Box 1057, North Sydney, NSW 2059, AUSTRALIA. (02) 9297773.

CAR FOR SALE: Several weeks ago, an ad appeared in the New York Daily News for a 1938 Roadmaster. Sidemounts, "all original parts". Said to be "canary yellow"(!) \$18000 or best offer. Call 212/799-0300, ext.43 or 212/740-7328 after 7:30 PM. At that price, I doubt it's moved, but one never knows. With some black paint and a lot of masking tape, you could create the world's only 1938 Roadmaster Taxi.

'88 BCA National

PHOTOS BY DAN McLAUGHLIN (#466)



Robert Cobb's 1938 Model 41 in beige with red wheels (#590 ; Chicago, Illinois).



1938 Special four-door owned by Bob Castelli (#530) of Novi, Michigan.



Ray Lawson's 1938 90-L has been a feature of virtually every Buick show in the Midwest for several years (#016 ; Troy, Michigan).



Anyone who was at Flint will remember this one: a '37 Century convertible coupe in what might--or might not--be Balmoral Glen. The owner, a D. Johnson, is not one of us.



IN A COUNTRY GARDEN...in Nottingham, England, we see in the middle distance a statue, and in the foreground the body shell of Derek Hodgett's 1937 Limited, statuesque itself despite its lack of paint, trim, and everything else. (Perhaps it is "undraped"? ... "nude"?) In Vol. VI, No. 7 we saw Derek beginning work on this "export" model; it has right-hand drive, and has — or had — a leather interior: properly British. Below we see what Derek terms the "Battlefield": i.e. his shop. I wish I had that much room. Derek has temporarily retreated from the front, leaving his tweed cap atop the right front fender.





TECHNICAL TIPS



CAM AND ROD BEARINGS

In "Engine Rebuilding - Part 4" (Vol. VI, No. 8) author Paul Culp stated that he avoided a "hot tank" treatment in cleaning his engine block, because that would have destroyed the babbitt-metal cam bearings. "If they had required replacement," Paul said, "it would have been necessary to line-bore them since they are not precision-type bearings." According to Dave Lewis, this is true so far as it goes (i.e. that a "hot tank" will destroy the original bearings); however, cam bearings that do not require a line-bore operation are available from Terrill Machine for the relatively modest price of \$30 (40-series) or \$45 (60, 80, 90-series) per set. Dave has used these bearings, presumably with success, and says he always replaces the cam bearings when rebuilding an engine.

Connecting rods machined for insert bearings are also available from Terrill at \$22 each plus your old rod.

Terrill Machine, Inc.
Route 2, Box 61
De Leon, Texas 76444
817/893-2610

Be sure to enclose a SASE if you write to them.

EXHAUST MANIFOLD CENTER SECTION

A call from Ed DePouli (#310) alerted me to a potentially-misleading statement in the Engine Rebuilding article on Manifolds (Issue 2). In fitting the reproduction center section to your existing end pieces when restoring the large engine exhaust manifold, it is important that all the mating surfaces be round. The article said that either the center section or the end pieces could be machined to achieve correct fit. This is true; however, Ed points out that if the mating surfaces of the end pieces have distorted to an oval shape (as sometimes happens), and you cut the center section to accept the end pieces without re-working them, you will not have an all-around close fit and the joints will leak. I think this is fairly implied by the article, but agree it could have been more clearly stated. (This is the Editor's fault, not author Paul Culp's since I re-wrote that part of his article.) In my own case, the machinist ended up taking some metal off the center section because he did not have the equipment necessary to grip the end pieces in his machine. We did this, however, after determining that the end pieces were only very-minimally out of round, and dressing them off with files by hand. This worked. Indeed, you can probably do the whole job with files if you work carefully, since the mating surfaces of the new center section should be round when you get it. Obviously you will need a micrometer, and you must take readings continuously around your end pieces as you work on them. If you get the end pieces round with a file and they still don't fit into the repro center section, milling the latter should be considered. There is plenty of metal on the center section (the flanges have been made thicker than the original), and in my opinion you should avoid thinning the end pieces any more than is necessary. Each set of manifold pieces presents its own special case, and one must adapt the procedure to it, keeping in mind the goal to be achieved: a close slip fit aided by anti-seize compound, with no out-of-round mating surfaces.

POSTSCRIPT: RUNNING BOARD FIX

A note from Lewis Cohen (#584), author of the running board repair article in Issue 2, says that the best final coating was achieved with Mark "M-216 Rubber Hide." This is a paint and does not require thinning: "Seems to give the best uniform final finish," Lewis says. It's available from Mark Enterprises, Layton, NJ 07851, 201-948-4157. (This firm specializes in Ford T and A parts, but sells numerous other interesting products. Request free auto restoration catalog.) Incidentally, Lewis also says: "Always a thrill to see my name in a publication." Thrill to see your name! Send in a story or technical "tip."



Five-Passenger Two-Door Touring Sedan with trunk back
MODEL 68

NEW MEMBERS

Thomas Parkinson (#722)
2238 Woodside Ln.
Niles, MI 49120
616/684-3629
'37 '81

Allen Anderson (#723)
780 Lakeview Drive
Lakewood, NJ 08701
201/370-1422
'37 '66S

George Hanna (#724)
56 Locust St.
Floral Park, Ny 11001
516/437-6647
'37 '40

John K. Macmillan (#725)
3521 Maplewood Ave.
Los Angeles, CA 90056
213/390-3902
'37 '81

Gene S. Smith (#726)
4798 Pleasant Place
Santa Maria, CA 93455
805/937-5054
'37 '91

Roger Baumann (#727)
5387 E. 39 Place
Tulsa, OK 74135
918/627-8421
'38 '81

Allen G. White (#728)
18756 W. 59 Place
Golden, CO 80403
303/278-1048
'37 '48

J. Duane Harriger (#729)
RD 1
Sligo, PA 16255
814/745-2370
'37 '46C '37 '66S
'37 '91 '38 '46C

Marvin Gurganus (#730)
Rt.3- Box 69
Plymouth, NC 27962
'38 '81

Bob Mulcahy (#731)
1879 Romero St.
Yuba City, CA 95991
'38 '81

Peter Mintun (#732)
2647 Pine St.
San Francisco, CA 94115
415/931-3464
'38 '41

Peter A. Economos (#733)
RD 2- Box 523E
Rehoboth, DE 19971
302/645-2935
'37 '46C

R. Ted Howard (#734)
4308 Plaza Gate Lane
Jacksonville, FL 32217

Tom Alderink (#735)
619 W. 23 St.
Holland, MI 49423
616/392-1761
'37 '81F



2, 4, 6, Eight Volts!



This is an interesting article by Jack Holmes (#583) on the use of 8-volt batteries. Jack is an electrical engineer, so I think it a fair assumption that he knows what he's talking about. Over and over, we see reports of the "discovery" of 8-volt tractor batteries, urging everyone to dump their 6-volt batteries and get faster starts, brighter lights, etc. (The latest example is a recent issue of the BCA Bugle.) This had led me to conclude that 8-volt batteries are like sex: everyone who tries them for the first time thinks he's found a terrific new thing. But as with sex, indiscriminate application can lead to trouble. I, and several other people, have preached this sermon again and again: if you simply plop an 8-volt battery into a '37 or '38 Buick, sooner or later you will blow out your generator and voltage regulator, and then you will have no starts and no lights. Other literature will tell you about "safe sex"; this will show us how to convert to a "safe" 8-volt electrical system. Many thanks to Jack Holmes.

Notes on the Conversion to an Eight-Volt Electrical System

by

Jack K. Holmes, Ph.D.

Just after I paid the gentleman the negotiated amount of money for my recently restored 1937 Buick Special coupe (model 46) and began to walk towards it, he said "By the way the car has an eight-volt battery!" I thought, well, he is probably mistaken. On the way home I started thinking about the comment concerning the eight-volt battery. I thought to myself "It sure cranked over fast for an old car with a recently rebuilt engine, and the lights almost seemed to as bright as my modern car". After I got home and pulled the front seat out to view the battery I discovered that was right: there is such a thing as a eight-volt auto battery!

I called the previous owner up and asked what modifications had he made to the electrical system? He said "I didn't change a thing". After driving the car for awhile I noticed that the "Charge Indicator" (it is technically not an ammeter) would flicker up and down as if the battery and the generator were doing a tug-of-war! This was caused by the fact that the regulator voltage was about equal to the battery voltage.

Following a perusal of the 1937 Buick repair manual I decided that a couple of modifications should be done. These changes are as follows:

- (1) Readjust the voltage regulator to compensate for the greater battery voltage (from 6 to 8 Volts).

- (2) Put a resistance in series with the hot lead going to the radio to reduce the input voltage to about 6 volts.

Since the gas gauge, lights, coil, plugs, starter motor, generator, etc. are tolerant to higher voltages, it is not necessary to change them.

First consider the radio voltage compensation. Since the 37 Buick radio draws about 7 amps when warmed up, I choose a resistance of about 0.3 ohms so that $7 \times .3 = 2.1$ volts (Ohms Law) would be subtracted off the radio input voltage, leaving about 5.9 volts nominal. This was accomplished by buying five ignition resistors (fortunately on sale at the time of purchase) placed in parallel.

Each ignition resistor measured about 1.5 ohms with a multimeter, so that with all five in parallel the resistance was $1.5/5 = 0.3$ ohms. If the selected ignition resistor measures less resistance, then fewer resistors would be needed. For example, if the resistors measured 1.2 ohms, four resistors in parallel would yield a net resistance of $1.2/4 = 0.3$ ohms, which would work fine also. The voltage reduction is not that critical; a nominal drop of 2 volts \pm 0.3 volts should be fine.

Next consider the readjustment of the voltage regulator. Figure 1 illustrates the voltage regulator circuit diagram with the five terminals and the generator. The 1937 Buick generators (Delco Remy models 918A and 918B) are capable of producing about 28 amperes at 7.5 volts into a 6-volt battery. Into a 8-volt battery the current drive capability is reduced somewhat; however, my system is still capable of charging the battery with both my headlights and the radio on. The original voltage setting of the voltage regulator is specified as 7.4-7.6 volts when the generator is warmed up.

I followed the procedure in the Buick shop manual for this adjustment including the jumper wire from the battery terminal of the regulator to the ignition terminal of the regulator. I strongly recommend anyone considering this conversion to take the time to make the correct adjustments. I set the voltage setting of the regulator to about 9.9 (8/6 of 7.5) volts to allow sufficient differential charging voltage to the battery. Actually a voltage of 9.8 to 10.0 should be alright. The voltage of the regulator is adjusted by bending the spring hanger to which the lower end of the spiral spring is attached.

This spring hanger is accessible by removing the regulator cover, and is located near the ignition and the ground terminals of the regulator as can be seen in figure 2. Increasing the spring tension (bending the hanger towards the base of the regulator) increases the voltage and visa-versa. Bend the hanger down just a little bit at a time, and measure the battery voltage at the battery terminal of the regulator and set to about 9.9 volts.

At this point it is appropriate to list the advantages and disadvantages of the six to eight conversion:

Advantages

brighter headlights/taillights
and dash lights

easier cold weather starting

easier hot weather starting

easier starting rebuilt engines
that are tight

disadvantages

light bulbs burn out faster

car is not strictly original

This conversion is applicable to later Buicks (and other cars) with the "modern" regulator which includes a cutout relay, a current regulator unit, and the voltage regulator unit. I would recommend adjusting the current regulator to the specified current on cars so equipped.

In summary, if you don't have a hard starting problem there is no reason to make the conversion. However, if you do have a starting problem associated with a tight rebuilt engine, or a tired one, it might lead to a greater enjoyment of your car. The eight-volt conversion is more desirable than a twelve-volt conversion which requires a new generator along with a voltage reducer to convert to six volts for the lights and accessories.

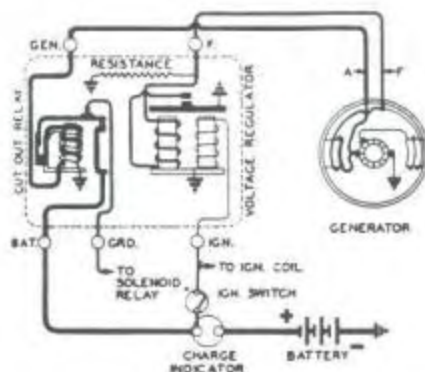


Figure 1. Voltage regulator Circuit Diagram

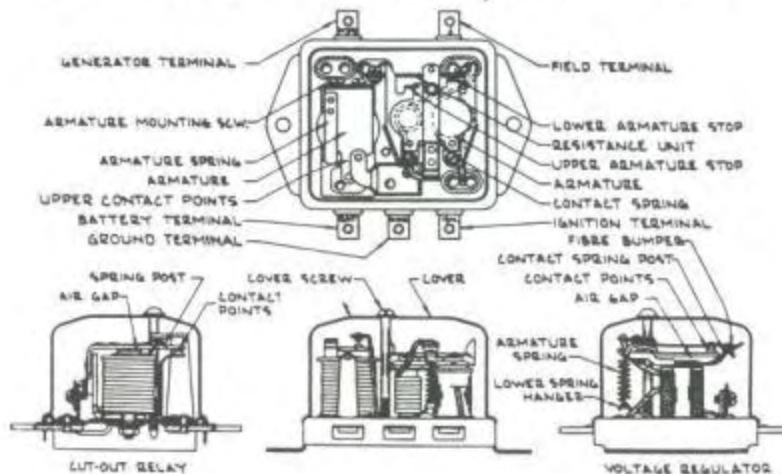


Figure 2. Voltage Regulator-All Series-1937

The article assumes that the reader has some basic knowledge of electric systems, and a few tools (e.g., a voltmeter). If you don't have both, seek help in performing the voltage regulator adjustment.

One question I can't answer is this: how does one charge an 8-volt battery? I have a battery charger that does either 6 or 12 volts. Presumably, if there are 8-volt batteries, there are also 8-volt battery chargers, and I would inquire at a farm or heavy-equipment dealer. In my opinion, a home battery charger is essential for any "old car" owner. Another thing that will help, irrespective of battery voltage, is one of those master disconnect switches. Cut into the cable that runs from the positive terminal to the starter, the switch when turned off isolates the battery from the car's electrical system. (Obviously, the same thing can be accomplished by removing the cable from the battery, but this is sufficiently inconvenient that you're not likely to do it, especially on a '37.) Disconnecting the battery will help significantly in keeping it well-charged when the car is run only occasionally, besides being a safety feature. (I have seen automotive electrical systems catch fire spontaneously.) Some people try to hide the switches, but they are not a "points-off" modification at any BCA or AACA judged meet, so there is really no need for that. Besides, the point of having the switch is convenience: the better you hide it, the less likely it is you will use it.



PLEASE NOTE



Due to a variety of demands on his time, Paul Culp was not able to complete his next "Engine Rebuilding" article prior to my deadline. We hope this article (on pistons) will appear in Issue 4. In lieu of that, and so as not to disappoint all of you Culp fans, we are reprinting two articles by Paul that appeared a few years ago and which were very well received. (In fact, they were reprinted -- with our permission -- in the BCA Bugle.) These should be helpful to new members, at least. To the old-timers who've seen it before, our apologies. It is not easy to fill these pages with "fresh stock," and I have concluded that allowing my deadlines to slip gets me into too much trouble. The two articles are:

"Speedometer Maintenance" -- originally in Vol. IV, No. 8
(June 1986).

"Oil Pump Repair" -- originally in Vol. IV, No. 7
(May 1986).

In addition to the method described in the latter, there is a good "fix" for leaking oil pumps using a later year Buick repair kit. This will be covered in a future issue, as soon as the Editor can get some photos taken of the parts.



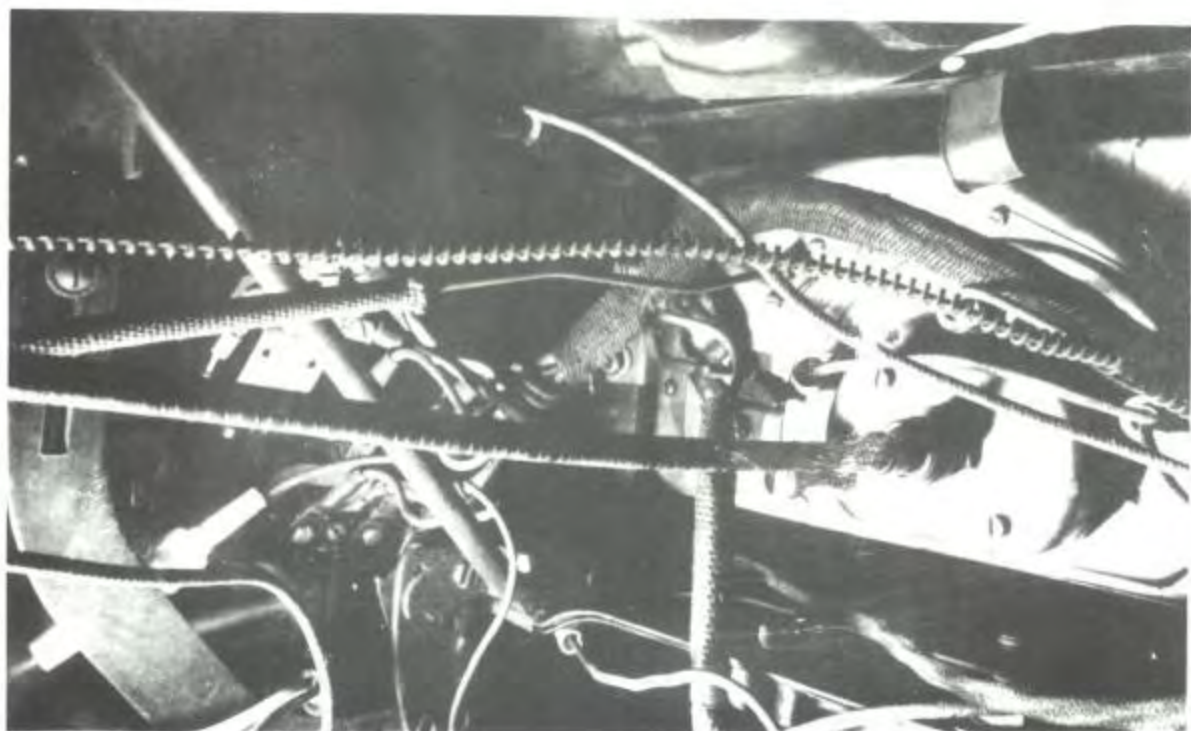
Speedometer Maintenance



Article and Photos by Paul Culp

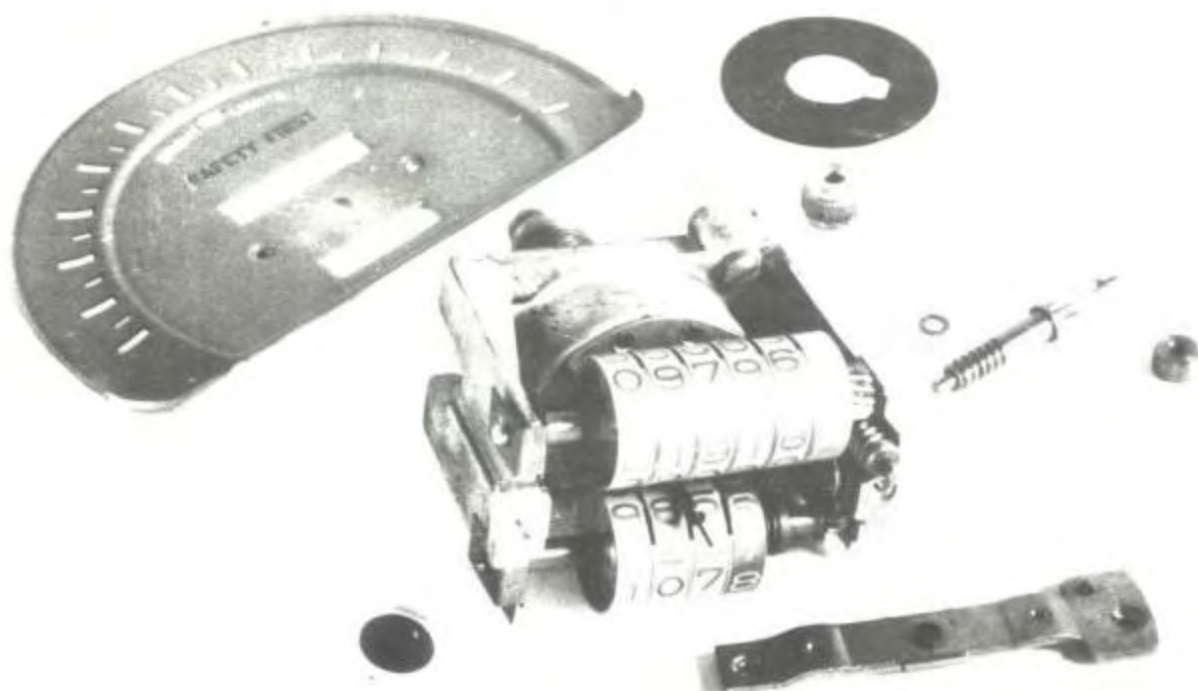
Last winter, while driving in below-freezing temperatures, noise and vibrations developed in the speedometer on my '38 Century. I had cleaned and lubricated the cable a few months earlier, and decided the problem must thus be in the speedometer unit itself. So I decided to remove the unit for a thorough cleaning in the hope that this would cure the problem. The photos show that this is not as difficult as one might think.

First, disconnect the battery. This is always a good idea when working behind the dash, and in this case is necessary because of the illuminating lights and the high beam indicator which are part of the speedo unit. Remove these light sockets and the drive cable and then the three mounting screws. Once the unit is removed from the dash, it can be transferred to a clean work area.

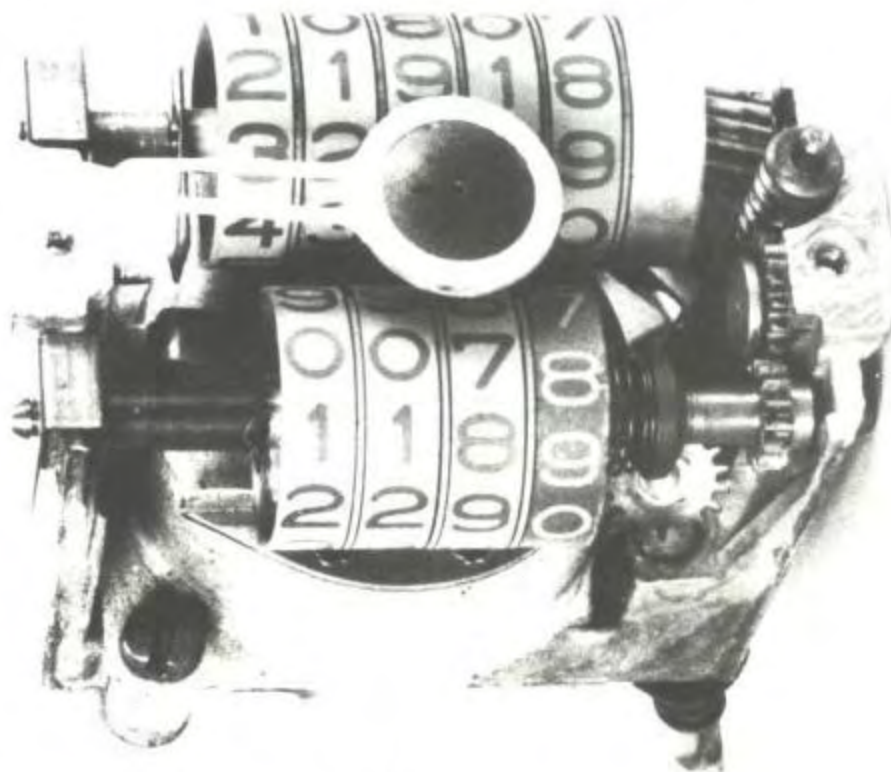


Remove the two screws from the housing and the flathead screw from the trip odometer reset knob. To effectively clean and lubricate the gears we must also remove the two screws securing the face panel and pointer.

Cleaning out the old contaminated grease is most important. This will insure a thorough repair.



The double-ended shaft shown in the photo must be removed by use of a small drift punch. Once cleaned and lubricated it may be reinstalled by driving back into position. Not much pressure is required. The spindle support shaft for the pointer is secured by two mounting screws; remove this and you have access to the gears.





The gears may be cleaned with kerosene and/or picking out the old grease. Do not use a solvent that might damage the number wheels. It is not necessary to remove the gears or the number cylinders. Just keep gravity in mind when cleaning so as not to create extra work.



Replace all the parts in reverse order and clean the inside of the glass before replacing the unit.

This little project took care of all my speedometer troubles. When a problem like this is caught early, it may well save the car owner much time and money later.



EDITOR'S NOTE. Many thanks to Paul for another great photo-essay on a subject that has received little attention. Paul is obviously someone who is not quick to throw things away. Among the photos was one I did not print; it shows the materials used, including a dented one quart can marked in typical U.S. Government style: "Oil, lubricating, for aircraft instruments and machine guns" and "Date of manufacture May 1943." An authentic relic of World War II that lives on with new and peaceful uses!



Oil Pump Repair



Article and Photos by Paul Culp (#508)

This project is generally done in connection with other engine repair work. However, when oil pressure is low, sometimes the pump is the culprit, and heavy repairs can be avoided. Obviously, a rebuilt pump won't help worn bearings, but in some cases restoring the pump is all that is necessary. (Editor's Note: See Vol. IV, Issue 1, page 14.)

After the oil pan is removed -- you must first remove the front stabilizer bar -- disconnect the pump by removing the two cap screws that fasten it to the block. The float separates after the cotter pin is removed. My float was quite heavy and sank in the cleaning fluid. I found a pin hole in the float chamber, which had allowed the float to fill with oil. The float is designed to take oil into the pump from the top level of the oil in the pan, so that sludge and contamination sink to the bottom and are not recirculated through the pump. If the float does not work properly and sinks to the bottom, excessive wear on the pump and other engine components may result. I enlarged the small hole so the old oil could drain out, then cleaned and dried the float and screen thoroughly, and welded the hole closed.

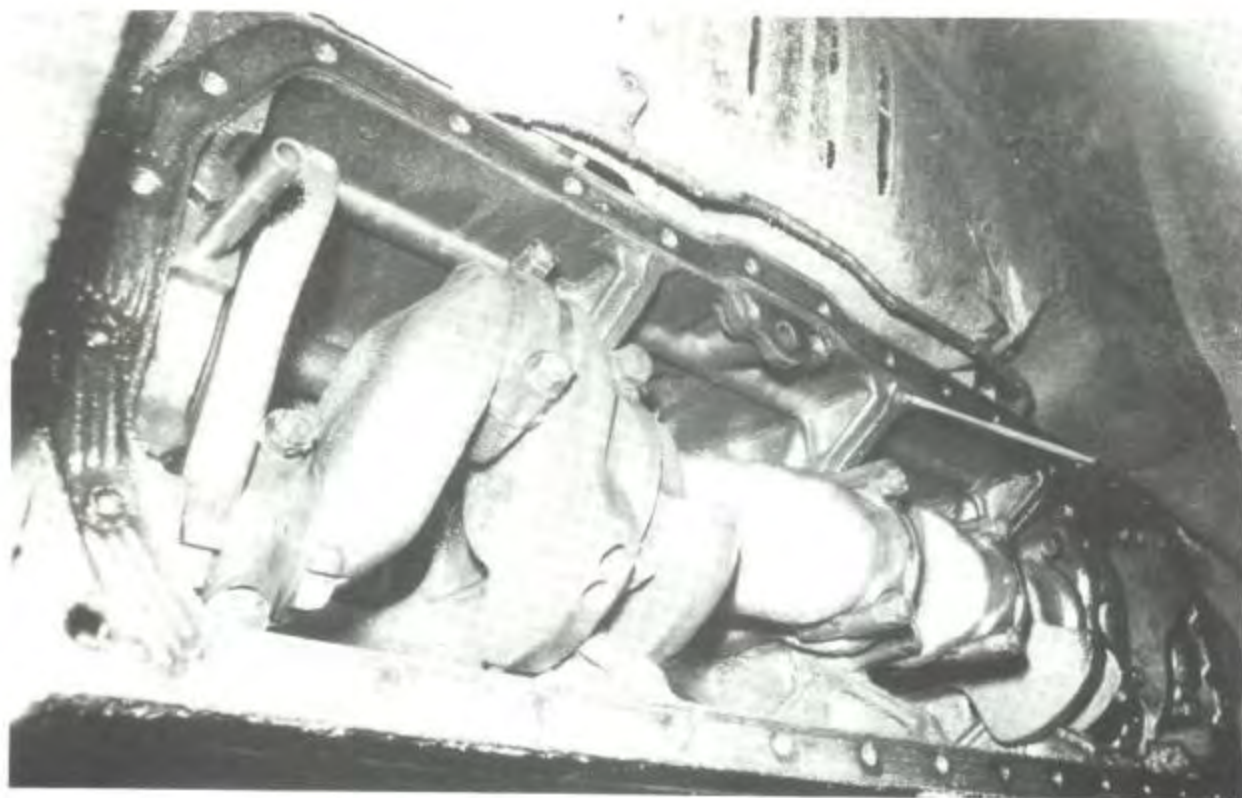
After the pump was cleaned, I measured the gear end clearance (i.e. the length of the gears versus the depth of the chamber in the pump body casting). The specification (see, e.g., 1938 Shop Manual Section 6-27) calls for .0005 to .004. Mine was .007, or about .003 over the maximum. I believe this was permitting oil to bypass the gears, rather than being displaced by them. I removed some metal from the mating surface of the pump body using a surface grinder, closing the clearance to .001. Any machine shop can do this work for about \$15.00. (Editor's Note: Be sure the mating surfaces of the body and cover are machined absolutely flat, so they come together with no gaps.)

The cover may need to be machined also; if that is done, be sure what you take off both surfaces is sufficient to achieve the correct tolerance. If the body and cover do not mate perfectly, the pump will leak, and all your work will be for naught!)

Next I measured the piston and cylinder of the relief valve. The valve area was gummed up and the piston had become galled, which prevented it from moving in the cylinder. If this piston becomes frozen it may not permit maximum oil pressure to the bearings. When there is too much pressure, the valve opens. If it is stuck closed, you may get too much pressure, especially at low speeds. In my case, it was stuck open, constantly relieving pressure: not enough pressure at high speed.

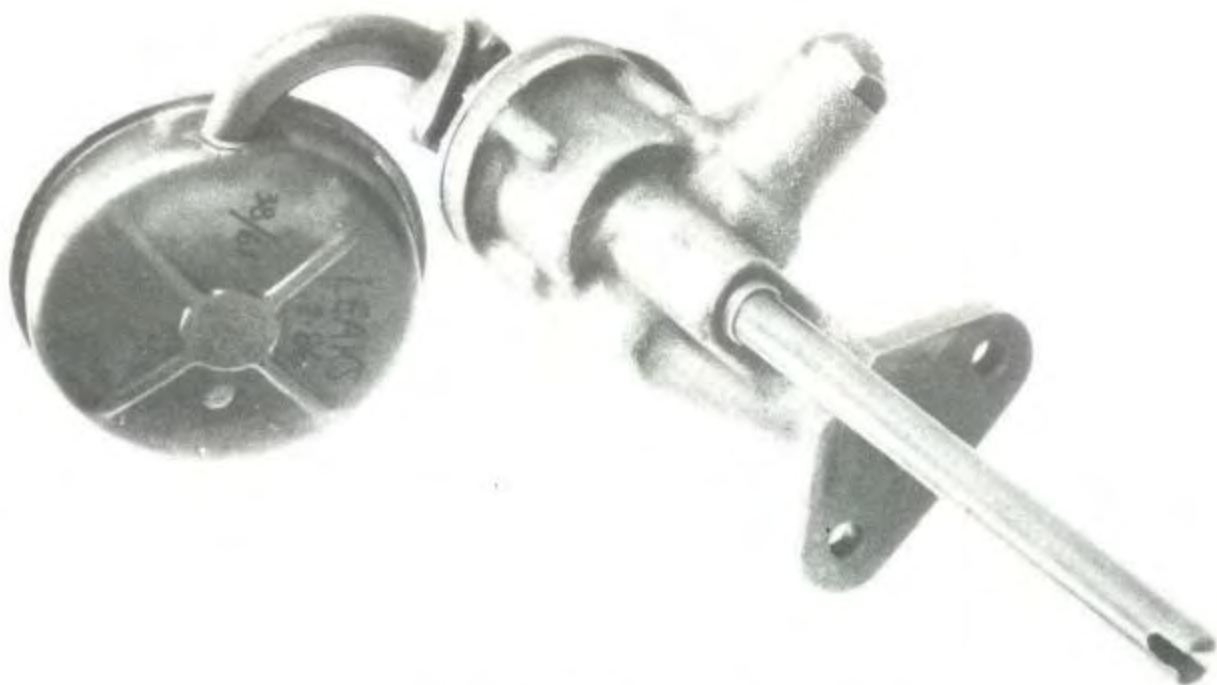
Cleaning up the piston did not work, since it came out .006 under size. The cylinder bore, however, was worn by only .0005. I made a new piston from tool steel and finished it to .562. It works very well. (Editor's Note: A machine shop that does custom work could make this for you. Or you can have the whole pump rebuilt by one of the specialty firms. See, for example, ads of Terrill Machine, Inc. and Egge Machine Company in Hemmings or Cars & Parts.)

Before replacing the pump, I recommend filling it with oil. This will get you to proper pressure much more quickly.



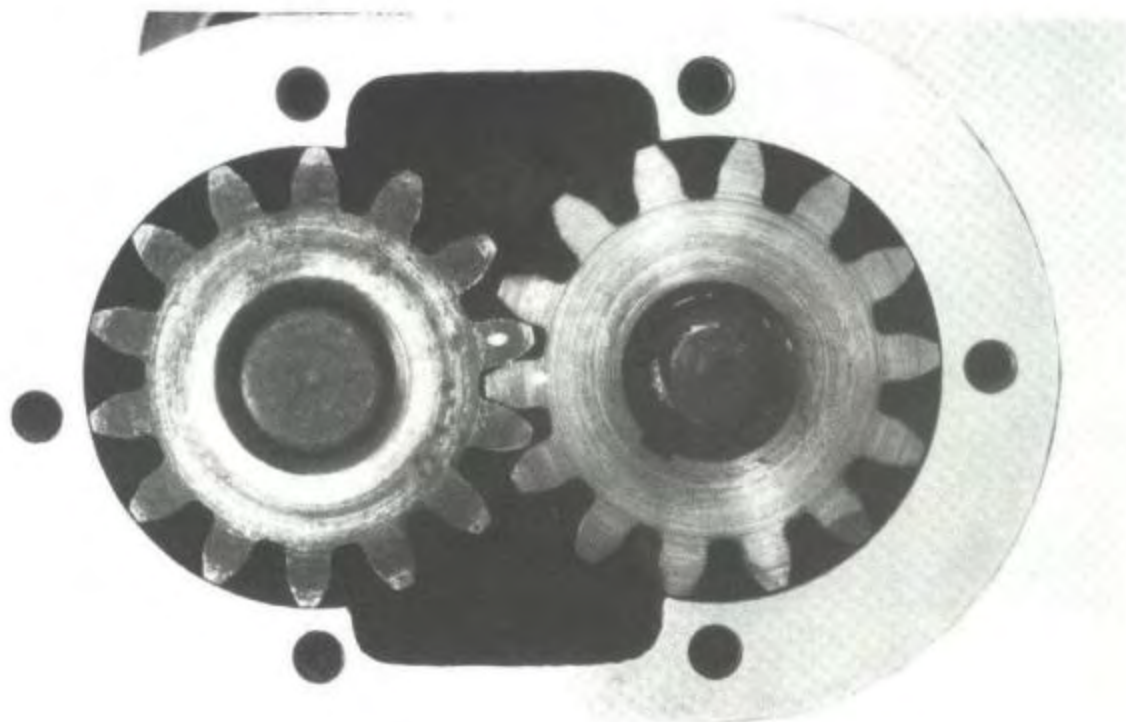
BOTTOM END OF 60 SERIES ENGINE

Oil pump attachment flange and oil passage at top center.



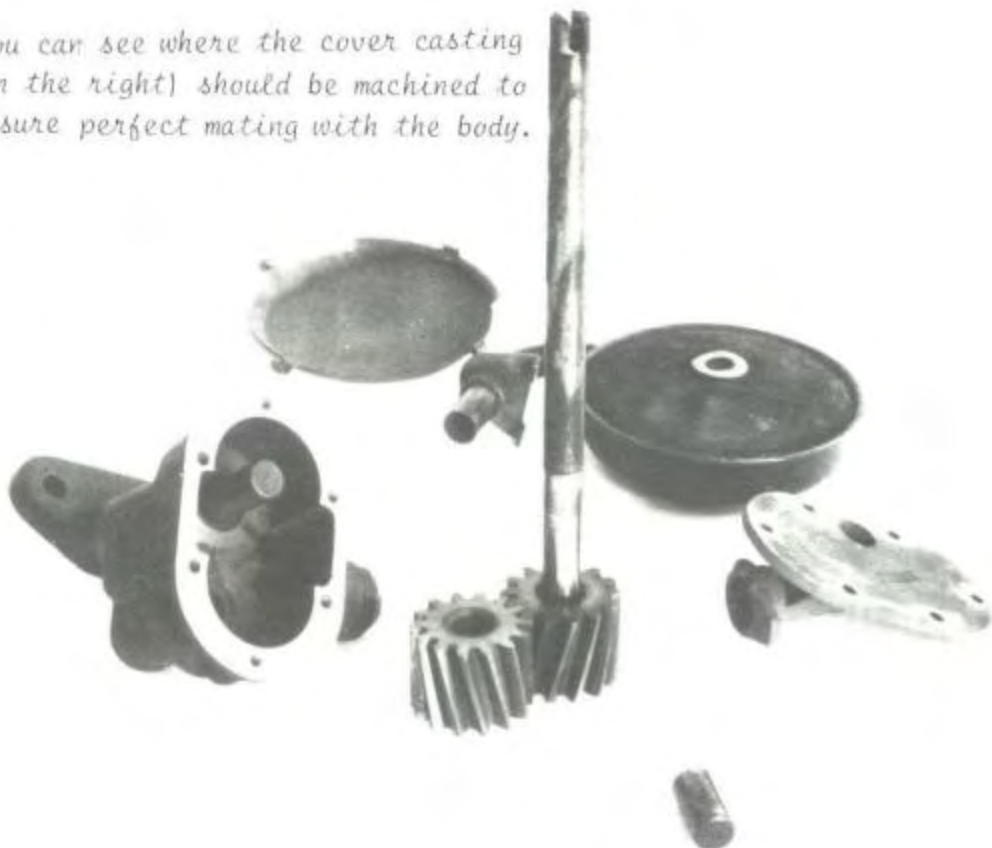
OIL PUMP AS REMOVED FROM ENGINE

This shows how the drive shaft is keyed into the bottom of the distributor drive off the camshaft.



PUMP BODY SHOWING GEARS IN PLACE

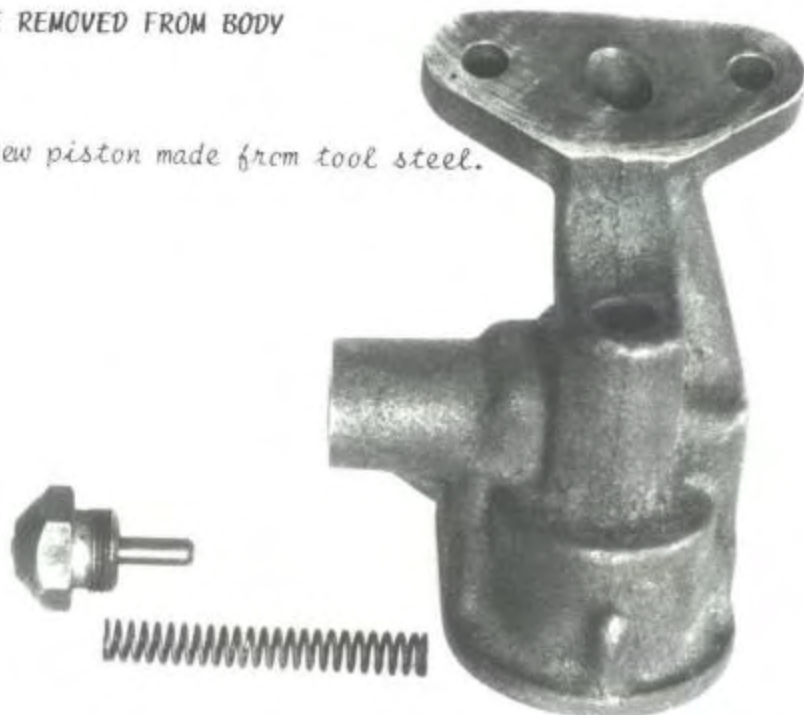
*You can see where the cover casting
(on the right) should be machined to
insure perfect mating with the body.*



CIL PUMP DISASSEMBLED INTO
MAJOR COMPONENTS

RELIEF VALVE REMOVED FROM BODY

This shows new piston made from tool steel.





PARTS EXCHANGE



PARTS FOR SALE

BUICK TORQUE BALL SEAL KITS, include shim gaskets, cork packing, instruction sheet and a tube of silicone. Will fit 1937-38 all series. \$29.95 postpaid. (NJ residents, add 6% sales tax.) Send check or money order with name and address; year and series of car. Please allow 2-3 weeks for delivery.

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FOR SALE: 1937 80-90 series front fenders, rear fenders, trunk lid (all excellent); set of bumpers (needs replating). DAVE SELLERS (#707). P.O. Box 288, Warren, VT 05674. 802/496-2726 home; 802/496-2787 office.

FOR SALE: I had to sell my dream last year; would like a buyer for the following left-over parts. 1937 radio-checked out & only needs vibrator to work--\$30. Wiring harness from Harnesses Unlimited, new in box ('37--41)--paid \$230; ask \$150. Rear window rubber ('37-41)--paid \$44; ask \$25. Front window rubber ('37-41)--paid \$40; ask \$22. ART MOORE (former member). 1925 Pontiac St., Oakdale, CA 95361.

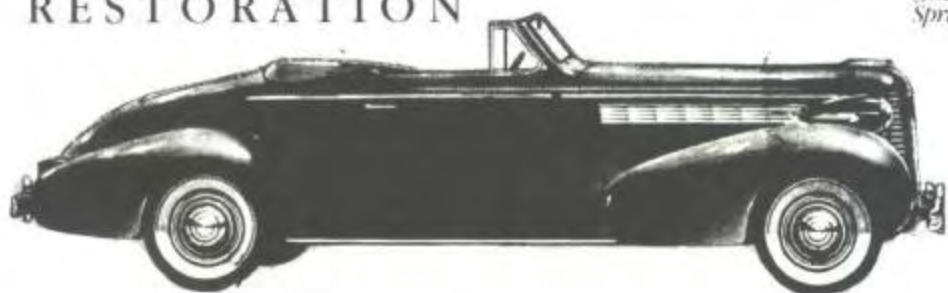
PARTS WANTED

WANTED: Need right-side mirror the same as or reasonably similar to my left-side mirror, for '37 80C. Regular mirrors don't work on this car. My left-side mirror is fastened to window frame by 1/4" cap screws. I also want a turn-signal kit that does not look grossly out of place, or info on where to buy. The Editor has bet me no one will respond to these requests, which he considers frivolous. Prove the arrogant bastard wrong! E.P. ("PAT") MOYER (#665). RR 1, Chemainus, British Columbia V0R 1K0, CANADA 604/246-3991

WANTED: For 1937 80-series: Steering wheel in good to excellent shape; gearshift knob; spark plug cover; gas cap; locking hardware for sidemounts. DAVE SELLERS (#707). P.O. Box 288, Warren, VT 05674. 802/496-2726 home; 802/496-2787 office.

THIS IS A WEAK, WIMPY, WOEFULLY MEAGRE SHOWING, FOLKS. MORE ADS ARE NEEDED. PARTS HOARDERS WILL BE FERRETED OUT AND EXPOSED BY THE EDITOR'S SECRET POLICE. IF WE DO NOT GET MORE ADS FOR THE NEXT ISSUE, I WILL PRINT A RECIPE FOR SPINACH SOUFFLE IN THIS SPACE. GET WITH IT !!!

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One Last Page



On February 21, 1939, GPO officials gather for the laying of the cornerstone for Building No. 3.

Charles Jekofsky (\$524), who works for the U. S. Government Printing Office in Washington, sent in this picture, which shows the ceremonial "laying of the cornerstone" for a new GPO building in 1939. The nice-looking vehicle in the background is, of course, a 1938 Buick. In addition to showing us some late 1930's clothing styles, the picture demonstrates that "wide whites" were actually used on cars before they became "antiques."

